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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,643	11/19/2003	David Hall	P-B088	6444

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EXAMINER

AN, SANG WOOK

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 01/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/716,643	HALL, DAVID	
	Examiner	Art Unit	
	Sang W. An	1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 7, 12, 16 and 23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-11, 13-15 and 17-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-6, 8-11, 13-15, and 17-22, drawn to a process for producing lumber type product from scrap carpet, classified in class 264, subclass 140.
 - II. Claims 7, 12, 16, and 23, drawn to a product made from a process as claimed in invention I, classified in class 428, subclass 2.
2. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the process as claimed can be used to make a materially different product such as recycled polyethylene terephthalate articles.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Mr. Thomas Timmons on 12/6/05 a provisional election was made with traverse to prosecute the invention of group I, claims 1-6, 8-11, 13-15, and 17-22. Affirmation of this election must be made by applicant in replying to this Office action. Claims 7, 12, 16, and 22 are withdrawn from further

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consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Objections

5. Claim 22 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Both claims 21 and 22 contain the plurality of grinding stages comprise a first grinding stage and a second grinding stage and wherein the plurality of heating stages comprises at least three heating stages.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The preamble to claim 1 cites a process for producing a "lumber type" product, however no step of producing a "lumber type" product is being claimed in the independent claim. Examiner suggests adding an extrusion step in claim 1 in order to include a step of producing the lumber type product.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 13-15, and 17-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Schmidt (US 5217655). Regarding claim 1 Schmidt teaches shredding the scrap carpet (Col 4 Line 2); grinding the shredded carpet (Col 4 Line 7-10); heating the grinded carpet to a first predetermined temperature range (Col 3 Line 54-56); heating the grinded carpet to a second predetermined temperature range which is higher than the first predetermined temperature range (Col 3 Line 56-58); and heating the grinded carpet to a third predetermined temperature range which is higher than the second predetermined temperature range (Col 3 Line 59-61). As to claim 13, Schmidt teaches grinding the shredded carpet comprises grinding the shredded carpet to pass through a one half inch screen and grinding the carpet a second time to pass through a screen of from about one fourth inch to about three eighths inch (Col 4 Line 10-18). As to claim 14, Schmidt teaches a carpet that has been substantially melted from heating, further including: extruding the melted carpet into a mold (Col 6 Line 59-69); and cooling the mold and the extruded melted carpet (Col 7 Line 14-17). As to claim 15, Schmidt teaches cooling the mold and the extruded melted carpet comprises placing the mold into water and circulating the water (Col 7 Line 14-17). As to claim 17, Schmidt teaches shredding the scrap carpet (Col 4 Line 2); grinding the shredded carpet in a plurality of grinding stages (Col 4 Line 7-10); heating the grinded carpet in a plurality of heating stages, wherein each succeeding heating stage heats the grinded carpet to a higher predetermined temperature range (Col 3 Lines 54-61). As to claim 18, Schmidt teaches

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grinding the shredded carpet comprises grinding the shredded carpet to pass through a one half inch screen and grinding the carpet a second time to pass through a screen of from about one fourth inch to about three eighths inch (Col 4 Line 10-18). As to claim 19, Schmidt teaches a carpet that has been substantially melted from heating, further including: extruding the melted carpet into a mold; and cooling the mold and the extruded melted carpet (Col 7 Line 14-17). As to claim 20, Schmidt teaches cooling the mold and the extruded melted carpet comprises placing the mold into water and circulating the water (Col 7 Line 14-17). As to claim 21 and 22, Schmidt teaches a plurality of grinding stages that comprises a first grinding stage and a second grinding stage (Col 4 Line 10-18) and wherein the plurality of heating stages comprises at least three heating stages (Col 54-61).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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12. Claims 2-6 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt. Schmidt teaches everything mentioned above in the 102(b) rejection. Furthermore, regarding claim 4 and 9, Schmidt teaches grinding the shredded carpet comprises grinding the shredded carpet to pass through a one half inch screen and grinding the carpet a second time to pass through a screen of from about one fourth inch to about three eighths inch (Col 4 Line 10-18). As to claim 5 and 10, Schmidt teaches the carpet has been substantially melted from heating, further including: extruding the melted carpet into a mold; and cooling the mold and the extruded melted carpet (Col 7 Line 14-17). As to claim 6 and 11, Schmidt teaches cooling the mold and the extended melted carpet comprises placing the mold into water and circulating the water (Col 7 Line 14-17).

As to claim 2,3, and 8, Schmidt explicitly teaches the first three heating stages wherein, the first predetermined temperature range is from about 205 to about 255 (claim 3) or about 225 to about 245 (claim 8) degrees Fahrenheit (Col 3 Line 54-56), the second predetermined temperature range is from about 275 to about 310 (claim 3) or about 285 to about 305 (claim 8) degrees Fahrenheit (Col 3 Line 56-58), the third temperature range is from about 340 to about 385 (claim 3) or 360 to about 380 (claim 8) degrees Fahrenheit (Col 3 Line 59-61). However, Schmidt is silent about heating the grinded carpet to a fourth predetermined temperature range which is higher than the third predetermined temperature range; and heating the grinded carpet to a fifth predetermined temperature range which is higher than the fourth predetermined temperature range. Nevertheless, Schmidt does suggest modifying the heating

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schedule (such as heating time) depending upon the specific profile of the intake material being processed and the properties of the materials (Col 4 Line 59-63). For example, certain carpet materials may need more heating time or higher temperature to achieve melting (Col 4 Line 54-56). Schmidt's recognition that the heating schedule may be tailored to the particular carpet feed indicates that Schmidt recognized the heat parameters as being process control variables. As such, one of ordinary skill in the art would use Schmidt's teaching to readily optimize the heating schedule to include any number of heating stages, such as five. See *In re Boesch* (617 F.2d 272, 205 USPQ 215, CCPA 1980). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to optimize Schmidt's teaching of modifying heating schedule in the process for producing a lumber type product from scrap carpet in order to accommodate for the specific profile and properties of the intake material such as higher melting temperature (Schmidt, Col 4 Line 59-63).

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sang W. An whose telephone number is (571) 272-1997. The examiner can normally be reached on Mon-Fri 7 AM - 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sang W. An
Patent Examiner
Art Unit 1732
December 15, 2005



MICHAEL P. COLAIANNI
SUPERVISORY PATENT EXAMINER